



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

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MEMORANDUM

SUBJECT: Guidance: Enforcement Applications of Continuous Emission Monitoring System Data

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TO: Addressees

I. Purpose and Application

The purpose of this guidance is to increase the use of continuous emission monitoring system ("CEMS") data in the Agency's compliance and enforcement program.<sup>1/</sup> EPA intends in this way to strengthen its efforts to ensure that sources comply with applicable law on a continuous basis and to enforce against those that do not.

This document addresses the following three enforcement applications for CEMS data:

- 1) the governing regulation specifies CEMS as the official compliance test method ("Compliance Method"), e.g., the Reference Method for the Standards of Performance for New Stationary Sources (NSPS);
- 2) the governing regulation specifies some method, other than CEMS as the Compliance Method; and

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<sup>1/</sup> "CEMS" as used in this guidance principally means instrumental or manual continuous emission monitoring systems. Furthermore, as with any other data, "CEMS" as used in this guidance assumes that EPA confirms that the specific data, normally available from the source, are reasonably accurate and precise. This information includes data such as those acquired during Performance Tests, Performance Specification Tests, and periodic calibrations of the CEMS. For additional information see 6/.

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- 3) the governing regulation concerns proper operation and maintenance, recordkeeping, and other requirements where no test method would be specified.

This guidance applies to any Federally-enforceable regulation or other requirement governing emissions, operations and maintenance ("O&M"), and monitoring and reporting procedures for stationary sources of air pollution. It should be read together with the attached document entitled "Guidance Concerning EPA's Use of Continuous Emission Monitoring Data" (August 12, 1982).<sup>2/</sup>

## II. Conclusion

EPA can put CEMS data to a variety of important enforcement uses, irrespective of whether the legal requirement being enforced specifies CEMS as the Compliance Method. For example, EPA can rely on CEMS data alone to issue Findings of Violation ("FOVs") and Notices of Violation ("NOVs").

However, the legal requirement must specify CEMS as the Compliance Method in order for EPA to rely on CEMS data alone to refer a case to the Department of Justice ("DOJ"), to prove a violation of an emission limitation in Federal district court, or to issue a Notice of Noncompliance ("NON") under §120. The same is true if EPA is to rely on CEMS data alone to issue an administrative order respecting emissions violations under §113(a).

On technical grounds, CEMS data typically are at least comparable to Compliance Method and inspection data derived from equally well-executed and quality-assured monitoring. CEMS data certainly are more representative of actual continuous emissions than are some traditional sources of compliance data, such as emission factors and engineering calculations.

## III. Discussion

### A. Where the Governing Regulation Specifies CEMS as the Compliance Method

CEMS is the Compliance Method in NSPS Subparts Da (covering new electric steam generators), P, Q and R (covering new non-ferrous smelters), and in certain SIP provisions, Federally-

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<sup>2/</sup> The 1982 guidance clarifies, among other things, the circumstances under which CEMS constitutes the applicable Compliance Method and the role played by CEMS under State Implementation Plans ("SIPs") which do not identify any Compliance Method.

enforceable compliance orders and permits. For sources covered by these provisions, EPA can rely on CEMS data alone to take all of the following enforcement actions:

1. Devise a priority list for inspections and other investigative activities;
2. Issue NOVs to SIP sources, or FOVs to non-SIP sources;<sup>3/</sup>
3. Document that a violation has continued 30 days beyond the date of the NOV in SIP cases;
4. Quantify the severity of violations for penalty calculation purposes, in negotiation or litigation;
5. Issue an administrative order under §113(a);
6. Issue a §120 NON;
7. Formally refer a case to the DOJ for filing as a civil or criminal action; and
8. Prove a violation in civil or criminal litigation in Federal district court.

B. Where the Governing Regulation Specifies Some Method Other Than CEMS as the Compliance Method

Here, CEMS data still can be very useful in initiating and supporting cases alleging emission violations. The Agency can rely on CEMS data alone to take any of the first four enforcement actions listed at Section III(A) above.

For example, EPA can use CEMS data standing alone as the basis for issuing an NOV or FOV for violation of an emission limitation.<sup>4/</sup> Proof of the existence of a violation of an emission limit for purposes of a compliance order or litigation virtually always must be based on Compliance Method data. However, issuance of an NOV or FOV requires a less rigorous evidentiary showing.

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<sup>3/</sup> While some Regional Offices do issue FOVs, it should be noted that EPA has no legal obligation to do so.

<sup>4/</sup> The Clean Air Act expressly permits the Administrator to issue an NOV "on the basis of any information available to him ... that any person is in violation of any requirement of an applicable implementation plan". 42 USC §7413(a)(1).

If after issuance, the source fails to come into compliance with the emission regulation, EPA normally must acquire Compliance Method evidence before it takes any of the last four enforcement actions listed at Section III(A) above.<sup>5/</sup> However, a second NOV is not necessary under these circumstances, assuming that there is evidence that a sufficient relationship exists between the CEMS data and the Compliance Method data.

In addition, CEMS data also can be used in support of emission violation cases to quantify emission levels and to document that a violation continued 30 days beyond the NOV issuance date. While EPA is frequently prepared to argue that any particular day should be considered a day of violation in the absence of emission data per se, CEMS data should serve to strengthen the government's case.

We believe that courts will generally accept non-Compliance Method CEMS data as an indicator of the magnitude and duration of emission violations because they represent emissions comparably to Compliance Method data.<sup>6/</sup>

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<sup>5/</sup> However, in most circumstances a Regional Office may rely on non-Compliance Method CEMS data alone to support a referral where it constitutes a pre-negotiated settlement agreement, referred for the single purpose of lodging with the court. The exception would be in situations where adverse public comments on the decree may be expected, and that could lead the government not to request the court to enter the decree. In such exceptional circumstances, the referral must be based upon Compliance Method data.

<sup>6/</sup> We assume that CEMS and Compliance Method data will be reliable and comparable to each other. This assumption is based principally upon three facts. First, the Agency requires sources to acquire and report reliable data (whether CEMS or Compliance Method). With respect to CEMS, this is accomplished by requiring sources to: (a) purchase, install and operate the CEMS in accordance with specific location criteria and performance standards; (b) demonstrate achievement of the Performance Specifications by comparing the CEMS and the Compliance Method results; (c) implement (at least daily) calibrations and O&M procedures; and (d) operate the CEMS during all Performance Tests. (If doubts remain, EPA can require additional comparative tests using §114.)

Second, the Agency has acquired data from numerous sources. Such data document the fact that sources are able to, and generally do report reliable and comparable data to agencies. Such documentation includes data acquired: (a) during the (footnote <sup>6/</sup> continued on page 5)

Finally, of course, CEMS data provide an altogether appropriate basis upon which to issue a §114 request for Compliance Method data.

C. Where No Compliance Method Is Specified by the Governing Regulation

This Section applies exclusively to requirements which govern violations of other than emission regulations. Here, the Agency may rely upon CEMS data alone to enforce directly various O&M, monitoring, recordkeeping and reporting requirements set out in NSPS regulations, SIPs, and Federally-enforceable orders and permits.

For example, Section 60.11(d) of the NSPS regulations establishes a general "good practices" O&M requirement. This requirement identifies no specific compliance method. Rather, it states that the "determination of whether acceptable ... procedures are being used will be based on information ... which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source." (Emphasis added.) Similar language is contained in many SIPs. CEMS data alone are sufficient to prove violations of such O&M requirements.

IV. Recommendations

CEMS provides a very useful and versatile source of enforcement data. EPA can use such data to take many traditional enforcement actions, often even when CEMS is not specified as the Compliance Method. Therefore, we encourage Regional Offices to use CEMS data consistent with the aforementioned paragraphs.

In addition, we encourage Regional Offices to:

- A. Make CEMS data acquisition and evaluation a standard operating procedure;

(continuation of footnote 6/)  
development of the CEMS Performance Specifications and (Proposed) Appendix F of Part 60 (Quality Assurance Requirements for SO<sub>2</sub> CEMS); (b) by receipt of hundreds of Performance Specification Test Results; and (c) while performing quality assurance and compliance audits of CEMS. (See, e.g., EPA publications entitled "Summary of Opacity and Gas CEMS Audit Programs" (EPA-340/1-84-016, September 1984); and "A Compilation of SO<sub>2</sub> and NO<sub>x</sub> Continuous Emission Monitor Reliability Information" (EPA-340/1-83-012, January 1983).)

Third, all certifications of visible emission observers are based upon quantitative comparisons between observers and "smoke schools" opacity CEMS.

- B. Cite CEMS data as supplementary evidence of violations in each NOV or §113(a) administrative order issued whenever the CEMS data substantiate the primary evidence; and
- C. Incorporate CEMS into ongoing enforcement actions (e.g., (1) consider requiring chronic violators to install and use CEMS; (2) cite CEMS procedural violations whenever they exist; and (3) cite the source for failure to properly operate and maintain its facility, based upon CEMS data).

Attachment

Addressees

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Region I - X

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Region I, III, V and IX

Air and Waste Management Division Director  
Region II

Air, Pesticides, and Toxics Management Division Directors  
Region IV and VI

Air and Toxics Division Directors  
Region VII, VIII and X

Air Branch Chiefs  
Region I - X

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